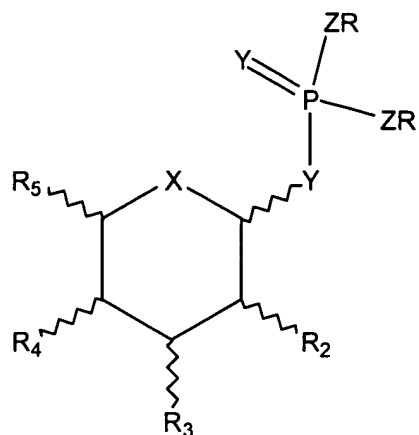


*Clean Claims*

1. (amended) A compound represented by structure 1:



1

wherein

X represents O;

Y represents independently for each occurrence O;

Z represents independently for each occurrence O;

R is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aralkyl, heteroaryl, and heteroaralkyl;

R' is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, aralkyl, heteroaryl, heteroaralkyl, acyl, and sulfonyl;

R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are independently selected from the group consisting of R<sub>6</sub>, -OR', -SR', -NR'<sub>2</sub>, -OSO<sub>3</sub>H, and -OPO<sub>3</sub>H<sub>2</sub>;

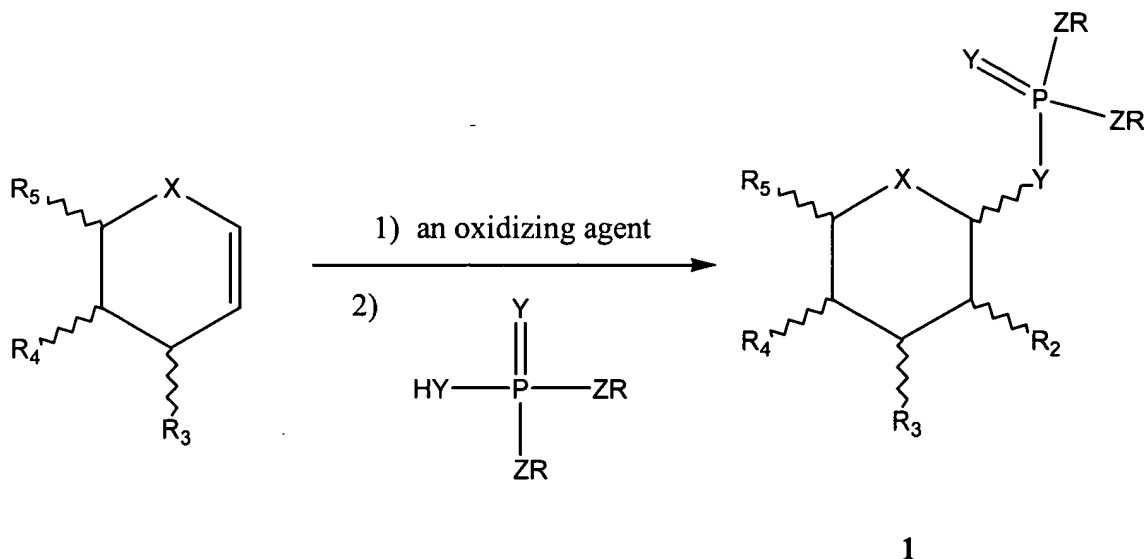
R<sub>5</sub> is selected from the group consisting of R<sub>6</sub>, -(CR<sub>2</sub>)<sub>n</sub>OR', -(CR<sub>2</sub>)<sub>n</sub>SR', and -(CR<sub>2</sub>)<sub>n</sub>NR'<sub>2</sub>;

R<sub>6</sub> is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, aralkyl, heteroaryl, and heteroaralkyl;

and

n is an integer selected from the range 0 to 10 inclusive.

42. (**amended**) A method of synthesizing a compound represented by **1**, wherein said method is represented by the following scheme:



wherein

$X$  represents O;

$Y$  represents independently for each occurrence O;

$Z$  represents independently for each occurrence O;

the oxidizing agent is selected from the group consisting of dioxiranes, percarboxylates, and persulfates;

$R$  is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, aralkyl, heteroaryl, and heteroaralkyl;

$R'$  is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, aralkyl, heteroaryl, heteroaralkyl, acyl, and sulfonyl;

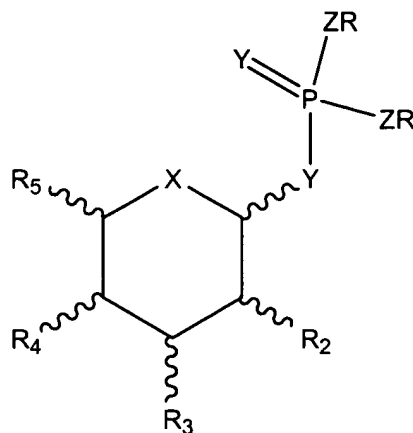
$R_2$  is  $OR'$ ;

$R_3$ , and  $R_4$  are independently selected from the group consisting of  $R$ ,  $-OR'$ ,  $-SR'$ ,  $-NR'_2$ ,  $-OSO_3H$ , and  $-OPO_3H_2$ ;

B2  
R<sub>5</sub> is selected from the group consisting of R, -(CR<sub>2</sub>)<sub>n</sub>OR', -(CR<sub>2</sub>)<sub>n</sub>SR', and -(CR<sub>2</sub>)<sub>n</sub>NR'<sub>2</sub>;  
and

n is an integer selected from the range 0 to 10 inclusive.

45. (new) A compound represented by structure 2:



2

wherein

X represents O;

Y represents independently for each occurrence O;

Z represents independently for each occurrence O;

R represents independently for each occurrence aryl;

R' is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, aralkyl, heteroaryl, heteroaralkyl, acyl, and sulfonyl;

R<sub>2</sub> is selected from the group consisting of R<sub>6</sub>, -OR', -SR', -NR'<sub>2</sub>, -OSO<sub>3</sub>H, -OPO<sub>3</sub>H<sub>2</sub>;

R<sub>3</sub>, and R<sub>4</sub> are independently selected from the group consisting of R<sub>6</sub>, -OR<sub>7</sub>, -SR', -NR'<sub>2</sub>, -OSO<sub>3</sub>H, and -OPO<sub>3</sub>H<sub>2</sub>;

R<sub>5</sub> is selected from the group consisting of R<sub>6</sub>, -(CR<sub>2</sub>)<sub>n</sub>OR<sub>7</sub>, -(CR<sub>2</sub>)<sub>n</sub>SR', and -(CR<sub>2</sub>)<sub>n</sub>NR'<sub>2</sub>;

$R_6$  is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, aralkyl, heteroaryl, and heteroaralkyl;

$R_7$  is selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, heteroaryl, heteroaralkyl, and sulfonyl;

and

$n$  is an integer selected from the range 0 to 10 inclusive.

b3